What is claimed is:

1. A color separator circuit for performing color separation on image signals fed thereto from a solid-state image-sensing device having pixels provided with a plurality of types of color filters, comprising:

a contour detector for detecting a contour of a subject sensed by the solid-state image-sensing device by recognizing variations in signals levels of the image signals fed from the solid-state image-sensing device;

a first color separation filter for correcting the image signals fed from the solid-state image-sensing device by correcting each image signal based on a plurality of preceding and succeeding image signals;

a second color separation filter for correcting the image signals fed from the solid-state image-sensing device by correcting each image signal based on a plurality of preceding and succeeding image signals; and

a selector for selecting the second color separation filter when correcting image signals that represent a portion of an image that corresponds to the contour detected by the contour detector and selecting the first color separation filter when correcting image signals that represent a portion of the image other than the portion corresponding to the contour,

wherein the first color separation filter uses a smaller number of image signals to correct an image signal than the second color separation filter.

2. A color separator circuit for performing color separation on image signals fed thereto from a solid-state image-sensing device having pixels provided with different types of color filters that are arranged in a recurrent pattern in a vertical direction, comprising:

a luminance signal generator for generating luminance signals from the image signals

fed from the solid-state image-sensing device;

a first color separation signal generator for producing, for each of the image signals fed thereto from the solid-state image-sensing device, a first color separation signal according to the type of the color filter provided for a target pixel that is currently yielding the image signal; and

a second color separation signal generator for producing, from the image signals fed thereto from the target pixel and from a pixel vertically adjacent thereto, a second color separation signal for the target pixel according to the type of color filter provided for the vertically adjacent pixel based on relationship between signal levels of luminance signals generated for the target pixel and for the vertically adjacent pixel by the luminance signal generator.

3. A color separator circuit as claimed in claim 2,

wherein the second color separation signal for the target pixel is produced in such a way that a ratio of a signal level of the second color separation signal produced for the target pixel by the second color separation signal generator to a signal level of the first color separation signal produced for the vertically adjacent pixel by the first color separation signal generator is equal to a ratio between signal levels of the luminance signals generated for the target pixel and for the vertically adjacent pixel by the luminance signal generator.

4. A color separator circuit for performing color separation on image signals fed thereto from a solid-state image-sensing device having pixels provided with two different types of color filters that are arranged alternately in a horizontal direction, comprising:

a contour detector for detecting a contour of a subject sensed by the solid-state image-

sensing device by recognizing variations in signals levels of the image signals fed from the solid-state image-sensing device;

a first small-tap-number color separation filter for correcting, for each of pixels provided with one of the two types of color filters, an image signal output from the pixel based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a second small-tap-number color separation filter for producing, for each of pixels provided with one of the two types of color filters, an image signal ascribable to the other type of color filter by performing interpolation based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a first large-tap-number color separation filter, having a larger number of taps than the first small-tap-number color separation filter, for correcting, for each of pixels provided with one of the two types of color filters, an image signal output from the pixel based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a second large-tap-number color separation filter, having a larger number of taps than the second small-tap-number color separation filter, for producing, for each of pixels provided with one of the two types of color filters, an image signal ascribable to the other type of color filter by performing interpolation based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a selector for selecting, as first and second signals, signals output from the first and second large-tap-number color separation filters when correcting image signals that represent a portion of an image that corresponds to the contour detected by the contour detector and signals output from the first and second small-tap-number color separation filters when correcting image signals that represent a portion of the image other than the portion corresponding to the contour;

an adder for adding together the first and second signals output from the selector to output luminance signals; and

a subtractor for calculating a difference between the first and second signals output from the selector to output color separation signals,

wherein the first and second small-tap-number color separation filters, the first and second large-tap-number color separation filters, the selector, the adder, and the subtractor constitute a horizontal-direction false coloring suppressor that alleviates false coloring in a horizontal direction.

5. A color separator circuit as claimed in claim 4,

wherein, as the horizontal-direction false coloring suppressor, three horizontal-direction false coloring suppressors are provided, namely a first, a second, and a third horizontal-direction false coloring suppressor,

wherein the first, second, and third horizontal-direction false coloring suppressors each receive one of three image signals output from three vertically adjacent pixels of the solid-state image-sensing device,

wherein the color separation signals output from the subtractor of the second horizontal-direction false coloring suppressor are output as first color separation signals, and

wherein the color separation signals output from the subtractors of the first and third horizontal-direction false coloring suppressors are corrected based on signal levels of the luminance signals individually output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors so as to be output as second color separation signals.

6. A color separator circuit as claimed in claim 5, further comprising:

an adder circuit for adding together the color separation signals output from the subtractors of the first and third horizontal-direction false coloring suppressors; and

a multiplier circuit for multiplying signals output from the adder circuit by a value based on the signal levels of the luminance signals output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors.

7. A color separator circuit as claimed in claim 6,

wherein, assuming that the signal levels of the luminance signals output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors are yLa, yLb, and yLc, respectively, the value K by which the multiplier circuit multiplies is given as $K = yLb / (yLa + yLc)$.

8. A chrominance signal processing device that produces chrominance signals based on signals output from a color separator circuit provided therein, said color separator circuit comprising:

a contour detector for detecting a contour of a subject sensed by a solid-state image-sensing device having pixels provided with a plurality of types of color filters, said contour detector detecting the contour by recognizing variations in signals levels of image signals fed thereto from the solid-state image-sensing device;

a first color separation filter for correcting the image signals fed from the solid-state image-sensing device by correcting each image signal based on a plurality of preceding and succeeding image signals;

a second color separation filter for correcting the image signals fed from the solid-

state image-sensing device by correcting each image signal based on a plurality of preceding and succeeding image signals; and

a selector for selecting the second color separation filter when correcting image signals that represent a portion of an image that corresponds to the contour detected by the contour detector and selecting the first color separation filter when correcting image signals that represent a portion of the image other than the portion corresponding to the contour,

wherein the first color separation filter uses a smaller number of image signals to correct an image signal than the second color separation filter.

9. A chrominance signal processing device that produces chrominance signals based on signals output from a color separator circuit provided therein, said color separator circuit comprising:

a luminance signal generator for generating luminance signals from image signals fed thereto from a solid-state image-sensing device having pixels provided with different types of color filters that are arranged in a recurrent pattern in a vertical direction;

a first color separation signal generator for producing, for each of the image signals fed thereto from the solid-state image-sensing device, a first color separation signal according to the type of the color filter provided for a target pixel that is currently yielding the image signal; and

a second color separation signal generator for producing, from the image signals fed thereto from the target pixel and from a pixel vertically adjacent thereto, a second color separation signal for the target pixel according to the type of color filter provided for the vertically adjacent pixel based on relationship between signal levels of luminance signals generated for the target pixel and for the vertically adjacent pixel by the luminance signal

generator.

10. A chrominance signal processing device as claimed in claim 9,

wherein the color separator circuit produces the second color separation signal for the target pixel in such a way that a ratio of a signal level of the second color separation signal produced for the target pixel by the second color separation signal generator to a signal level of the first color separation signal produced for the vertically adjacent pixel by the first color separation signal generator is equal to a ratio between signal levels of the luminance signals generated for the target pixel and for the vertically adjacent pixel by the luminance signal generator.

11. A chrominance signal processing device that produces chrominance signals based on signals output from a color separator circuit provided therein, said color separator circuit comprising:

a contour detector for detecting a contour of a subject sensed by a solid-state image-sensing device having pixels provided with two different types of color filters that are arranged alternately in a horizontal direction, said contour detector detecting the contour by recognizing variations in signals levels of image signals fed thereto from the solid-state image-sensing device;

a first small-tap-number color separation filter for correcting, for each of pixels provided with one of the two types of color filters, an image signal output from the pixel based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a second small-tap-number color separation filter for producing, for each of pixels provided with one of the two types of color filters, an image signal ascribable to the other type

of color filter by performing interpolation based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a first large-tap-number color separation filter, having a larger number of taps than the first small-tap-number color separation filter, for correcting, for each of pixels provided with one of the two types of color filters, an image signal output from the pixel based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a second large-tap-number color separation filter, having a larger number of taps than the second small-tap-number color separation filter, for producing, for each of pixels provided with one of the two types of color filters, an image signal ascribable to the other type of color filter by performing interpolation based on image signals output from a plurality of pixels horizontally neighboring the pixel;

a selector for selecting, as first and second signals, signals output from the first and second large-tap-number color separation filters when correcting image signals that represent a portion of an image that corresponds to the contour detected by the contour detector and signals output from the first and second small-tap-number color separation filters when correcting image signals that represent a portion of the image other than the portion corresponding to the contour;

an adder for adding together the first and second signals output from the selector to output luminance signals; and

a subtractor for calculating a difference between the first and second signals output from the selector to output color separation signals,

wherein the first and second small-tap-number color separation filters, the first and second large-tap-number color separation filters, the selector, the adder, and the subtractor constitute a horizontal-direction false coloring suppressor that alleviates false coloring in a

horizontal direction.

12. A chrominance signal processing device as claimed in claim 11,

wherein, in the color separator circuit, as the horizontal-direction false coloring suppressor are provided three horizontal-direction false coloring suppressors, namely a first, a second, and a third horizontal-direction false coloring suppressor,

wherein the first, second, and third horizontal-direction false coloring suppressors each receive one of three image signals output from three vertically adjacent pixels of the solid-state image-sensing device,

wherein the color separation signals output from the subtractor of the second horizontal-direction false coloring suppressor are output as first color separation signals, and

wherein the color separation signals output from the subtractors of the first and third horizontal-direction false coloring suppressors are corrected based on signal levels of the luminance signals individually output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors so as to be output as second color separation signals.

13. A chrominance signal processing device as claimed in claim 12,

wherein the color separator circuit further comprises:

an adder circuit for adding together the color separation signals output from the subtractors of the first and third horizontal-direction false coloring suppressors; and

a multiplier circuit for multiplying signals output from the adder circuit by a value based on the signal levels of the luminance signals output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors.

14. A color separator circuit as claimed in claim 13,

wherein, assuming that the signal levels of the luminance signals output from the adder circuits of the first, second, and third horizontal-direction false coloring suppressors are yLa, yLb, and yLc, respectively, the value K by which the multiplier circuit multiplies is given as K = yLb / (yLa + yLc).